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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,344

12/09/2003

Walter Fleischmann

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3553

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EXAMINER
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SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2885

MAIL DATE	DELIVERY MODE
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06/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/731,344	<b>Applicant(s)</b> FLEISCHMANN ET AL.	
	<b>Examiner</b> Hargobind S. Sawhney	<b>Art Unit</b> 2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 7-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 7-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Request for Continued Examination (RCE) filed on April 4, 2007 has been entered.
2. Following documents file on April 4, 2006 have been entered.
  - English translation of German Patent Application No. 103 02 322.4 filed with the U.S. Patent and Trademark Office filed on April 4, 2007;
  - The response to the Office action of December 7, 2006; and
  - Declaration pursuant to 37 C.F.R. § 1.131 filed on March 1, 2007.
3. The Declaration filed on March 1, 2007 under 37 CFR 1.131 is sufficient to overcome the Berman et al. (US Patent Application Pub. No.: US 2004/0135522 A1) reference, now U.S. Patent No. 7,148,632 B2.
4. According to the amendments filed on November 8, 2006 and June 19, 2006: Claims 2 and 4-6 have been canceled; and examination of claims 1, 3, 7 and 8-27 is as detailed below.
5. In view of newly discovered reference Pross et al. (US Patent No. 6,396,466 B1), claims 1, 3, 7 and 8-27 have been further examined on new ground of rejection detailed below.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 7 and 8-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,871,981 B2 (Alexanderson et al.) in view of US Patent No. 6,396,466 B1 (Pross et al.).

Regarding Claim 1, Alexanderson et al. discloses an aircraft cabin lighting system (Figure 1) comprising plurality of light emitting diodes (LEDs) 111 connected in series (Figure 9), and the LEDs 11 arranged at a cabin wall of aircraft cabin (Figures 1 column 2, lines 10, 11, 66 and 67; and column 3, lines 1-4).

However, Alexanderson et al. does not specifically teach the LED-based lighting system operationally coupled to a control unit, a pulse width modulator and a plurality of regulating modules arranged in the manner as claimed by the applicant.

On the other hand, Pross et al. discloses an LED-based lighting system (Figure 4) comprising:

- A plurality of LEDs 9 actuatable by pulse width modulation means - included in the control module 5' – combination including the control 5 and the logic circuit 8 (Figures 3 and 4, column 4, lines 31-34); a control device 5' with a plurality of outputs (Figure 4, column 4, lines 35-39); and regulating modules 15 interposed between the control unit 8' and the LED lighting units 9 (Figure 4, column 4, lines 39-45); each of the regulating modules 15 connected to respective one of the outputs of the control

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device 8' (Figure 4, column 4, lines 39-45); each of the regulating modules 15 having an output connected to a separate one of the lighting LED unit string 9 (Figure 4); actuation of the LED lighting units 9 being independent from each other – based in dedicated regulation modules 15 (Figure 4, column 4, lines 39-45); and each of the regulating modules 15 holding current passing through the LED string 9, and keeping the LEDs string 9 at constant current (Figure 4, column 4, lines 39-45).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the aircraft cabin lighting system of Alexanderson et al. by providing:

- The control device as taught by Pross et al. for the benefits energy saving and operational flexibility of interior illumination;
- A pulse width modulator as taught by Pross et al. for the benefits of switch-mode power supply at regulated voltage;
- Regulating modules for controlling the current as taught by Pross et al. for the benefits of substantially constant light output from the LEDs, and for longevity of operational life of the LEDs.

Regarding claims 3 and 7-11, Alexanderson et al. in view of as taught by Pross et al. discloses the aircraft cabin lighting system further comprising:

- The simultaneously actuated plurality of units 8 being connected in parallel with each other, and further connected to the output of control unit 8' (Pross et al., Figure 4);

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- The plurality of LEDs 111 mounted at the cabin ceiling usable for displays displaying (Pross et al., Figure 1);
- The plurality of LEDs 111 being actuatable for selectively color-changing pattern Pross et al., Figure 1, column 1, lines 37-39);
- The arrangement of the LEDs 111 usable for displaying information on the duct panel 106 ( Alexanderson et al. column 3, lines 4-7);
- The actuation of the lighting produce by the LEDs 111 with a dimmer control 906 coupled to an event seeking passenger's attention (Alexanderson et al. Figure 11, column 6, lines 53-55); and a plurality of LEDs 111 being connected in series in each of the LED strings (Alexanderson et al. Figure 9).

Regarding claims 12- 19, Fleischmann ('180 B1) in view of Berman discloses the aircraft cabin lighting system meeting the limitations in similar manner as that applied to respective claims 1, 3 and 7-11 discussed above.

Regarding claims 20-27, Fleischmann ('180 B1) in view of Berman discloses the aircraft cabin lighting system meeting the limitations in similar manner as that applied to respective claims 1, 3 and 7-11 discussed above.

### ***Response to Amendment***

8. Applicant's Declaration pursuant to 37 C.F.R. § 1.131 filed on March 1, 2007 with respect to overcoming the reference Berman et al. (US Patent Application Pub. No.: US

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2004/0135522 A1) reference, now U.S. Patent No. 7,148,632 B2) has been found effective. Therefore, 1, 3 and 7-27 have been on new ground(s) of rejections.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bohlander et al. (U.S. Patent No. 6,796,690 B2) and Lefebvre (U.S. Patent No. 6,641,294 B2)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jong-Suk (James) Lee can be reached on 571 272 7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/13/2007

/Hargobind S. Sawhney/

Examiner, Art Unit 2885

1.